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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,995	11/30/2001	Giovanni Frezza	856063.722	3898

500 7590 07/03/2002

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EXAMINER

VU, QUANG D

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

A/E

**Office Action Summary**

Application No.

09/997,995

Applicant(s)

FREZZA, GIOVANNI

Examiner

Quang D Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, drawn to method of forming by molding a plastic protective package, classified in class 438, subclass 106.
- II. Claims 12-23, drawn to a mold for molding a plastic protective package, classified in class 257, subclass 787.

During a telephone conversation with Robert Iannucci on 06/10/2002 a provisional election was made without traverse to prosecute the invention of group II, claims 12-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-11 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation "...dyke or barrier..." of claims 22 and 23 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 12-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,622,873 to Kim et al.

Regarding claim 12, Kim et al. teach a mold for molding a plastic protective package encapsulating an integrated electronic circuit that includes an electronic device, the mold comprising a pair of superimposed half-molds (upper mold '9' and lower mold '10') defining a mold cavity for containing the integrated circuit (see figure 4; column 3, line 60 – column 4, line 18), wherein one half-mold has a lug protruding substantially at a location of the electronic device and abutting against the electronic device during a molding step.

Regarding claim 13, Kim et al. teach a covering layer (4) is interposed between the lug and the electronic device during the molding step (see figure 4).

Regarding claim 14, Kim et al. teach the covering layer is shaped to form a projecting portion from the electronic device (see figure 4).

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Regarding claim 16, Kim et al. teach the covering layer (4) covers the integrated device (see figure 4).

3. Claims 19 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,379,988 to Peterson et al.

Regarding claim 19, Peterson et al. teach a plastic protective package (14) for a semiconductor integrated electronic circuit, comprising a support (18) for an electronic device that can be at least partially activated from the outside of the package; wherein the package is provided with a hole (16) or a window aligned to at least on portion of the integrated device that is at least partially filled by a projecting portion of elastic material (26) projecting from a surface of the electronic device (see figure 2B).

Regarding claim 21, Peterson et al. teach the hole (13) has tapering walls toward the electronic circuit (see figure 7B).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,622,873 to Kim et al.

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Regarding claim 17, Kim et al. do not teach the lug is cylindrical in shape. It would have been obvious matter of design choice to make the lug in cylindrical shape, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art.

Regarding claim 18, Kim et al. do not teach the lug is truncated conical in shape. It would have been obvious matter of design choice to make the lug in truncated conical shape, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,622,873 to Kim et al as applied to claim 12 above, and further in view of US Patent No. 5,897,338 to Kaldenberg.

Regarding claim 15, Kim et al. do not teach the projecting portion is shaped to form a ring. However, Kaldenberg teaches the projecting portion is shaped to form a ring (figure 2; ref. number 22b; column 3, lines 15 – 21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Kaldenberg into the device taught by Kim et al., since the ring can prevent the contact of mold to the electronic device.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al. as applied to claim 19 above, and further in view of Kaldenberg.

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Regarding claim 20, Peterson et al. do not teach the projecting portion is shaped to form a ring. However, Kaldenberg teaches the projecting portion is shaped to form a ring (figure 2; ref. number 22b; column 3, lines 15 – 21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Kaldenberg into the device taught by Peterson et al., since the ring can prevent the contact of mold to the electronic device.

8. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al. as applied to claim 19 above, and further in view of US Patent No. 5,852,320 to Ichihashi.

Regarding claims 22 and 23, Peterson et al. do not teach the projecting portion is surrounded by dyke formed on the surface of the electronic device. However, Ichihashi teaches the dike (see figures 1-6; column 3, lines 42-49; column 8, lines 34-37). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Ichihashi into the device taught by Peterson et al., since it is desirable to prevent low viscosity adhesive from flowing to undesired areas.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang D Vu whose telephone number is 703-305-3826. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on 703-308-2772. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

QVU  
July 1, 2002

QVU

Tom Thomas

TOM THOMAS  
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